

## **2. Enhancing the impact of proving grounds with NWS training exercises on new weather satellites**

Jordan J. Gerth

*Cooperative Institute for Meteorological Satellite Studies (CIMSS), Space Science and Engineering Center (SSEC), University of Wisconsin  
Madison, WI*

Bill D. Ward

*Pacific Region Headquarters (PRH), National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA)  
Honolulu, HI*

The Geostationary Operational Environmental Satellite R-Series (GOES-R) and Joint Polar Satellite System (JPSS) collectively represent the most significant upgrade to the United States space-based weather observing capability in over 20 years, with the next upgrade not until the 2030s. Now and in the time ahead, the onus is on the National Weather Service (NWS) to ensure that their workforce is capable of employing the additional spectral bands on the GOES-R Advanced Baseline Imager (ABI) and Geostationary Lightning Mapper (GLM) as well as the JPSS Advanced Technology Microwave Sounder (ATMS), Cross-track Infrared Sounder (CrIS), and Visible Infrared Imaging Radiometer Suite (VIIRS) to improve services consistent with the NWS mission. The ABI also brings substantial improvement to the temporal frequency of imaging as well. Through proving grounds and testbeds, the NWS has engaged in a decade-long readiness activity to envision and test the likely scenarios in which this imagery and the resultant products will be used. The readiness activity is culminating in the delivery of a substantial body of training related to operational uses and pertinent applications of geostationary and polar-orbiting weather satellite imagery and products.

The training is coming in a variety of forms. There are both foundational and applications courses, where the primary method of delivery is teletraining. However, the NWS has invited Science and Operations Officers (SOOs) to participate in one of seven short residence workshops in Kansas City related to GOES-R to be able to serve as a resident expert for their staff. In 2015 and 2016, short instructor-led workshops for all staff members were held at the field offices in Guam and Honolulu, Hawaii, as Japan's Himawari-8 become operational.

Focusing on the satellite proving ground and training efforts, this presentation will cover the nature of the NWS training program and ideas for how to evolve training so that it builds competency in not only operational products, but those undergoing validation. We discuss what it takes to build expertise in satellite meteorology with many other competing priorities facing today's forecasters. Finally, ideas for sustaining learning with proving ground and testbed activities over the upcoming decades will be explored.